

CBCS SCHEME

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15NT743

Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019 Engineering Materials and Surface Coating

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain adhesives and terminologies on adhesives. (08 Marks)
b. Explain about the functions of adhesives. (08 Marks)

OR

- 2 a. Explain advantages and disadvantages of adhesives. (08 Marks)
b. Explain the different types of force available in the adhesives. (08 Marks)

Module-2

- 3 a. Write a note on contact adhesives, hot melt adhesives, and reactive adhesives. (08 Marks)
b. Discuss about the properties, advantages, disadvantages, and applications of epoxies. (08 Marks)

OR

- 4 a. Write a note on poly urethane adhesives. (08 Marks)
b. Explain the properties and applications of acrylic adhesives. (08 Marks)

Module-3

- 5 a. Write a note on plasticizers and pigments. (10 Marks)
b. Explain about impact modifiers, and PVC stabilizers. (06 Marks)

OR

- 6 a. Write a note on UV. Absorbers and optical brightening agents. (08 Marks)
b. Explain anti oxidants, mold release agents. (08 Marks)

Module-4

- 7 a. Explain different components of paints. (08 Marks)
b. Explain applications of lubricants by fluid types. (08 Marks)

OR

- 8 a. Write a note on primer and varnish resins. (06 Marks)
b. Explain properties and types of lubricants. (10 Marks)

Module-5

- 9 a. Write a note on nano solder particles and nano-conductive adhesives for nano electronics. (08 Marks)
b. Write a note on CNT based conductive nano composites. (08 Marks)

OR

- 10 Elaborate the applications of nanotechnology in adhesives, paints and lubricants. (16 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.